

Mineral Industry Surveys

For information, contact:

Daniel Edelstein, Copper Commodity Specialist U.S. Geological Survey 989 National Center Reston, VA 20192

Telephone: (703) 648-4978, Fax: (703) 648-7757

E-mail: dedelste@usgs.gov

Michael Leahy (Data) Telephone: (703) 648-7964 Fax: (703) 648-7975 E-mail: mleahy@usgs.gov

Internet: http://minerals.usgs.gov/minerals

COPPER IN JANUARY 2005

Mine production of recoverable copper in January fell by 10% from that of December and was at its lowest level since July 2004, according to the U.S. Geological Survey. Reduced production of electrowon copper accounted for most of the decline. According to Phelps Dodge Corp., which accounted for about 88% of domestic electrowon copper production in 2004, heavy rainfall during the fourth quarter of 2004 and January and February 2005 slowed the operation of mining equipment and diluted processing solutions, which resulted in lower copper output at its Bagdad and Morenci operations in Arizona during the first quarter. Rains were particularly heavy at Bagdad, which received 30 inches of rain over a 6-month period, about four times the average annual rainfall. In addition to extra expenditures in trying to maintain production, Phelps Dodge was spending more to remain compliant with State and Federal environmental regulations (Phelps Dodge Corp., 2005§¹; Phelps Dodge Corp., 2005, p. 8).

According to preliminary calculations, apparent consumption of refined copper in 2004 (table 8) rose by almost 6% to 2,590,000 metric tons (t). Most of the increase came from a drawdown in copper inventories (521,000 t); refined production, copper recovered from old scrap, and net trade in refined copper changed only nominally from that of the previous year. Higher imports for consumption (807,000 t) compared with general imports (704,000 t) reflected the movement of bonded material from warehouses into the U.S. market.

In November 2004, Revett Minerals Inc. received permission from Montana officials to resume mining and processing silver-copper ore at its Troy Mine in Lincoln County. Mining resumed in December, and by the end of March the operation had about 140 employees. The company anticipated that the mine would reach its optimal mine plan of 5,900 metric tons per day of ore during the second quarter. At full production, it was anticipated that the mine would produce 3.2 million ounces per year of silver and 12,000 metric tons per year of copper over a mine life of 3½ years. Additional resources may extend the mine life to at least 5 years. Initial restart capital was budgeted at \$5.3

million, with an additional \$3 million in working capital. Revett Minerals was incorporated in August 2004 and acquired a 65% interest in Revett Silver Co., a privately held U.S. company that had acquired the Troy Mine in 1999. It also owned the Rock Creek project in Montana (Revett Minerals Inc., 2005a§, b§).

Update

The International Copper Study Group (ICSG) held its 25th Regular Meeting on March 17 in Lisbon, Portugal. According to ICSG projections, world copper mine production in 2005 was expected to increase by about 1.16 million metric tons (Mt) to 15.7 Mt and in 2006 by only an additional 160,000 t to a total of 15.8 Mt (an increase of 8% and 1%, respectively). The increase in 2005 was fairly evenly distributed over all major regions. In 2006, however, after years of rapid growth, a pause in the expansion of South American mine capacity was expected. According to projections in the ICSG's January 2005 Directory of Copper Mines and Plants, however, mine capacity growth in South America was expected to resume in 2007, and by 2008 was expected to increase by about 3.2 Mt compared with that of 2004, a compound annual growth rate of 4.8%.

World production of refined copper (both primary and secondary) was projected to increase in 2005 by about 1.33 Mt (+8.5%) to 17.1 Mt. Refined production in 2006 was projected to increase by 960,000 t (+5.2%) to 18.1 Mt. World refined copper consumption in 2005 was projected to grow by about 5.3%, or 870,000 t, to 17.4 Mt. Consumption in 2006 was forecast to grow by an additional 4.6%, or 800,000 t, to 18.2 Mt. Demand was expected to be supported by the continued growth of China's industry in both 2005 and 2006. As a result of higher refinery capacity utilization levels and slower growth of refined consumption, the refined copper production deficit was projected to fall to about 260,000 t in 2005, down from 720,000 t in 2004. The refined copper deficit was forecast to fall below 100,000 t in 2006 (International Copper Study Group, 2005a, b).

References Cited

Phelps Dodge Corp., 2005, Phelps Dodge reports record fourth quarter net income of \$341.1 million, or \$3.40 per share (includes net special charges of

¹References that include a section mark (§) are found in the Internet References Cited section.

\$23.1 million, or 23 cents per share); cash from operating activities of \$614.1 million: Phoenix, AZ, Phelps Dodge Corp. news release, January 27, 16 p. International Copper Study Group, 2005a, Forecast 2005-2006: Lisbon, Portugal, International Copper Study Group press release, March 18, 1 p. International Copper Study Group, 2005b, New edition of directory of copper mines and plants: Lisbon, Portugal, International Copper Study Group press release, April 12, 1 p.

Internet References Cited

Phelps Dodge Corp., 2005 (February 24), Webcast presentation at Morgan Stanley's Basic Materials Conference, accessed March 1, 2005, via URL http://www.phelpsdodge.com.

Revett Minerals Inc., 2005a (March 17), Revett Minerals Inc.—Emerging silver/copper producer, accessed April 11, 2005, via URL http://www.revettsilver.com.

Revett Minerals Inc., 2005b (March 31), Revett releases year end results, updates status of mining equipment purchases and bonding, and reports on potential permitting delay at Rock Creek, accessed April 11, 2005, via URL http://www.revettsilver.com.

 $\label{table 1} {\sf TABLE~1}$ SALIENT STATISTICS OF THE COPPER INDUSTRY IN THE UNITED STATES 1

(Metric tons, unless otherwise specified)

	Source	200)4 ^P	2005
	table ²	December	Year	January
Production:				-
Primary:				
Mine, recoverable	(2)	109,000	1,160,000	97,700
Refinery:				
Electrolytic:				
Domestic and foreign	(4)	69,300	671,000	55,800
Electrowon	(4)	50,000	584,000	42,000
Total	(4)	119,000	1,260,000	97,800
Secondary recoverable copper:				
Refineries	(5)	4,010	50,800	4,380
Ingot makers ³	(5)	9,890	119,000	9,890
Brass and wire-rod mills	(5)	51,300	705,000	60,400
Foundries, etc. ³	(5)	5,380	64,600	5,380
Smelter, total	(3)	49,900	542,000	42,700
Consumption:				
Apparent	(8)	182,000	2,590,000	NA
Refined (reported)	(7)	174,000	2,420,000	195,000
Purchased copper-base scrap	(9)	89,200	1,190,000	101,000
Stocks at end of period:				
Total refined	(11)	134,000	XX	138,000
Blister, etc.	(11)	51,400	XX	65,700
Prices:				
U.S. producer cathode (cents per pound) ⁴	(12)	150.897	133.938	150.261
Imports: ⁵				
Ores and concentrates ⁶	(14)		22,900	NA
Refined	(14)	51,100	807,000	NA
Exports: ⁵				
Ores and concentrates ⁶	(15)	719	24,200	NA
Refined	(15)	8,390	118,000	NA

^pPreliminary. NA Not available. XX Not applicable. -- Zero.

¹Data are rounded to no more than three significant digits, except prices; may not add to totals shown.

²Numbers in parentheses refer to the significant tables where these data are located.

 $^{^3\}mbox{Monthly}$ data and 2004 cumulative data estimated based on 2002 monthly average.

⁴Source: Platts Metals Week.

⁵Source: U.S. Census Bureau.

⁶Copper content.

 $\label{eq:table 2} \textbf{MINE PRODUCTION OF RECOVERABLE COPPER IN THE UNITED STATES}^1$

	Re	coverable coppe	er		Contained copper			
Period	Arizona	Others ²	Total	Electrowon	Concentrates ³	Total		
2004: ^P								
January	58,300	32,300	90,600	48,700	43,200	91,900		
February	55,000	29,600	84,600	44,700	41,100	85,800		
March	61,300	31,500	92,700	48,400	45,700	94,100		
April	55,400	31,600	87,100	47,600	40,600	88,200		
May	56,800	34,100	90,900	49,100	42,900	92,000		
June	59,200	33,500	92,800	49,400	44,600	94,100		
July	62,000	38,100	100,000	50,700	50,900	102,000		
August	62,800	36,200	99,000	49,300	51,200	100,000		
September	62,800	36,400	99,200	49,800	50,800	101,000		
October	64,200	39,400	104,000	48,900	56,300	105,000		
November	61,400	46,500	108,000	47,600	62,100	110,000		
December	63,300	45,200	109,000	50,000	60,300	110,000		
Total	723,000	435,000	1,160,000	584,000	590,000	1,170,000		
2005, January	58,300	39,400	97,700	42,000	57,300	99,300		

^pPreliminary.

 $\label{eq:table 3} \textbf{COPPER PRODUCED AT SMELTERS IN} \\ \textbf{THE UNITED STATES, BY SOURCE}^{1,2}$

(Metric tons, copper content)

	Anode
Period	production
2004: ^P	
January	39,700
February	30,100
March	41,300
April	44,400
May	52,900
June	46,500
July	46,500
August	51,300
September	48,000
October	49,200
November	42,300
December	49,900
Year	542,000
2005, January	42,700

Preliminary.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

 $^{^2 \}mbox{Includes}$ production from Idaho, Missouri, Montana, Nevada, New Mexico, and Utah.

 $^{^{3}\}mbox{Includes copper content of precipitates}$ and other metal concentrates.

¹Includes blister, anode and copper from primary or secondary sources.

²Data are rounded to no more than three significant digits; may not add to total shown.

 ${\it TABLE~4}$ PRODUCTION OF REFINED COPPER, BY SOURCE AND METHOD OF RECOVERY 1

	Pr	imary materials	_	_	•
	Electrolytically				Total
Period	refined ²	Electrowon	Total	Scrap	refined
2004: ^P					
January	51,300	48,700	100,000	4,190	104,000
February	50,300	44,700	95,000	3,920	98,900
March	52,300	48,400	101,000	4,330	105,000
April	59,000	47,600	107,000	4,360	111,000
May	55,600	49,100	105,000	4,150	109,000
June	58,900	49,400	108,000	4,460	113,000
July	49,200	50,700	99,900	4,080	104,000
August	53,400	49,300	103,000	3,870	107,000
September	57,700	49,800	108,000	4,660	112,000
October	57,400	48,900	106,000	4,540	111,000
November	56,700	47,600	104,000	4,190	109,000
December	69,300	50,000	119,000	4,010	123,000
Total	671,000	584,000	1,260,000	50,800	1,310,000
2005, January	55,800	42,000	97,800	4,380	102,000

^pPreliminary.

 ${\it TABLE~5}$ COPPER RECOVERABLE IN UNALLOYED AND ALLOYED FORM FROM PURCHASED COPPER-BASE SCRAP 1

(Metric tons, copper content)

	Refin	eries ²	Ingot n	nakers ³	Brass and w	ire-rod mills	Foundri	es, etc. ³	
Period	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	Total ⁴
2004: ^P									
January	1,340	2,860	2,340	7,550	57,400	3,610	2,020	3,360	80,500
February	1,340	2,590	2,340	7,550	56,600	3,900	2,020	3,360	79,700
March	1,340	3,000	2,340	7,550	60,100	3,650	2,020	3,360	83,400
April	1,340	3,020	2,340	7,550	60,500	2,900	2,020	3,360	83,000
May	1,340	2,820	2,340	7,550	54,600	3,090	2,020	3,360	77,100
June	1,340	3,120	2,340	7,550	55,900	2,910	2,020	3,360	78,500
July	1,340	2,740	2,340	7,550	56,400	2,440	2,020	3,360	78,200
August	1,340	2,540	2,340	7,550	56,800	2,450	2,020	3,360	78,400
September	1,340	3,320	2,340	7,550	55,200	2,690	2,020	3,360	77,800
October	1,340	3,210	2,340	7,550	56,800	2,670	2,020	3,360	79,300
November	1,340	2,850	2,340	7,550	50,500	2,670	2,020	3,360	72,700
December	1,340	2,680	2,340	7,550	48,000	3,300	2,020	3,360	70,600
Total	16,000	34,700	28,100	90,600	669,000	36,300	24,300	40,300	939,000
2005, January	1,340	3,050	2,340	7,550	57,700	2,780	2,020	3,360	80,100

^pPreliminary.

 $^{^{1}\}mathrm{Data}$ are rounded to no more than three significant digits; may not add to totals shown.

²From domestic and foreign source materials.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Electrolytically refined and fire-refined scrap based on source of material at smelter level.

³Monthly data and 2004 cumulative data estimated based on 2002 annual data.

⁴Does not include an estimate, based on reported 2002 data of 3,100 tons per month from new scrap and 2,020 tons per month of copper recovered from scrap other than copper-base.

 ${\bf TABLE~6}$ PRODUCTION, SHIPMENTS, AND STOCKS OF BRASS AND WIRE-ROD SEMIFABRICATES 1

(Metric tons, gross weight)

·	Pro	duction	Shi	pments	Stocks, e	Stocks, end of period	
Period	Brass mills	Wire-rod mills	Brass mills	Wire-rod mills	Brass mills	Wire-rod mills	
2004: ^P							
January	115,000	158,000	116,000	151,000	52,400	29,400	
February	117,000	146,000	119,000	147,000	52,200	28,500	
March	124,000	158,000	124,000	168,000	51,300	19,100	
April	125,000	159,000	124,000	160,000	52,400	18,300	
May	115,000	160,000	116,000	148,000	51,400	29,600	
June	118,000	143,000	117,000	148,000	52,700	23,900	
July	118,000	143,000	117,000	144,000	54,100	23,900	
August	119,000	162,000	118,000	156,000	54,700	29,500	
September	113,000	154,000	113,000	148,000	54,500	35,600	
October	120,000	135,000	120,000	148,000	54,400	23,000	
November	107,000	148,000	108,000	144,000	52,900	26,600	
December	100,000	134,000	97,600	130,000	55,300	31,200	
Total	1,390,000	1,800,000	1,390,000	1,790,000	XX	XX	
2005, January	113,000	141,000	114,000	137,000	55,100	35,100	

^pPreliminary. XX Not applicable.

 $\label{eq:table 7} \textbf{CONSUMPTION OF REFINED COPPER}^1$

(Metric tons)

	Brass	Wire-rod	Other	
Period and item	mills	mills	plants ²	Total
2004: ^P				
January	47,900	156,000	5,630	210,000
February	49,600	146,000	5,630	201,000
March	54,300	158,000	5,630	218,000
April	52,400	158,000	5,630	216,000
May	45,300	156,000	5,630	207,000
June	46,000	136,000	5,630	188,000
July	50,900	142,000	5,630	199,000
August	48,500	165,000	5,630	219,000
September	46,100	151,000	5,630	203,000
October	48,200	136,000	5,630	190,000
November	44,700	145,000	5,630	195,000
December	39,200	129,000	5,630	174,000
Total	573,000	1,780,000	67,600	2,420,000
2005:	'			
January:				
Cathodes	32,200	145,000	818	178,000
Wire bars			(3)	(3)
Ingots and ingot bars	1,860		2,230	4,090
Cakes and slabs	(3)		(3)	(3)
Billets and other	10,800	W	2,580	13,400
Total	44,900	145,000	5,630	195,000

^pPreliminary. W Withheld to avoid disclosing company proprietary data included with

¹Data are rounded to no more than three significant digits; may not add to totals shown.

[&]quot;Cathodes." -- Zero.

 $^{^{1}\}mathrm{Data}$ are rounded to no more than three significant digits; may not add to totals shown.

²Consumption by ingot makers, chemical plants, foundries, and miscellaneous manufacturers is estimated based on 2002 annual data.

³Withheld to avoid disclosing company proprietary data; included with "Billets and others."

 $\label{eq:table 8} \textbf{U.S.} \ \textbf{APPARENT CONSUMPTION OF COPPER}^1$

D : 1	Refined copper	Copper in	Refined general	Refined	Stock change	Apparent
Period	production	old scrap ²	imports ³	exports ³	during period	consumption
2003: ^p						
December	107,000	18,600	57,200	22,300	(11,000)	172,000
Total	1,250,000	224,000	687,000	93,300	(381,000)	2,450,000
2004: ^P						
January	100,000	19,400	43,700	11,000	(77,100)	229,000
February	95,000	19,400	45,400	18,500	(63,600)	205,000
March	101,000	19,600	62,500	23,900	(94,900)	254,000
April	107,000	18,900	54,100	28,400	(90,000)	241,000
May	105,000	18,800	56,300	3,700	(36,600)	213,000
June	108,000	19,000	40,400	2,720	(58,900)	224,000
July	99,900	18,100	75,600	5,470	(22,800)	211,000
August	103,000	17,900	65,500	9,350	(33,200)	210,000
September	108,000	18,900	73,800	570	(23,100)	223,000
October	106,000	18,800	60,200	3,890	(12,400)	194,000
November	104,000	18,500	75,300	2,460	(7,870)	204,000
December	119,000	18,900	51,100	8,390	(749)	182,000
Total	1,260,000	226,000	704,000	118,000	(521,000)	2,590,000
2005, January	97,800	18,800	NA	NA	4,000	NA

^pPreliminary. NA Not available.

 ${\bf TABLE~9} \\ {\bf CONSUMPTION~OF~PURCHASED~COPPER-BASE~SCRAP}^1 \\$

(Metric tons, gross weight)

-	Smelters an	d refineries	Ingot n	nakers ²	Brass and wi	re-rod mills ³	Foundri	es, etc. ²	Total scrap
Period	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	used
2004: ^P									
January	1,350	2,880	3,490	10,700	71,900	3,730	3,530	3,730	101,000
February	1,350	2,610	3,490	10,700	70,800	4,020	3,530	3,730	100,000
March	1,350	3,020	3,490	10,700	75,900	3,760	3,530	3,730	105,000
April	1,350	3,050	3,490	10,700	75,400	2,930	3,530	3,730	104,000
May	1,350	2,770	3,490	10,700	68,500	3,200	3,530	3,730	97,300
June	1,350	3,150	3,490	10,700	70,900	3,040	3,530	3,730	99,800
July	1,350	2,760	3,490	10,700	71,100	2,620	3,530	3,730	99,300
August	1,350	2,550	3,490	10,700	72,600	2,580	3,530	3,730	101,000
September	1,350	3,290	3,490	10,700	70,300	2,820	3,530	3,730	99,200
October	1,350	3,230	3,490	10,700	71,500	2,810	3,530	3,730	100,000
November	1,350	2,890	3,490	10,700	63,300	2,780	3,530	3,730	91,700
December	1,350	2,700	3,490	10,700	60,300	3,440	3,530	3,730	89,200
Total	16,200	34,900	41,900	128,000	843,000	37,700	42,300	44,800	1,190,000
2005, January	1,350	3,080	3,490	10,700	72,400	2,910	3,530	3,730	101,000

 $^{^{}p} Preliminary. \\$

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes reported monthly production of copper from old scrap of copper-base, an estimate for annual reporters, and a monthly average of copper from non-copper-base materials based on 2002 data.

³Source: U.S. Census Bureau.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Monthly data and 2004 cumulative data estimated from 2002 annual data.

³Consumption at brass and wire-rod mills assumed equal to receipts.

 $\label{table 10} {\tt CONSUMPTION\ OF\ PURCHASED\ COPPER-BASE\ SCRAP^{1,\,2}}$

(Metric tons, gross weight)

-		20	004 ^P		2005
Scrap type and processor	January	November	December	Year	_ January
No. 1 wire and heavy:					
Smelters and refiners	5,610 ^r	5,610	5,610	67,400	5,690
Brass and wire-rod mills	34,800	30,400	29,600	394,000	34,100
No. 2 mixed heavy and light:	_				
Smelters and refiners	2,200 r	2,210	2,020	26,700	2,440
Brass and wire-rod mills	697	386	433	6,250	490
Total unalloyed scrap:					
Smelters and refiners	7,810 ^r	7,820	7,630	94,100	8,120
Brass and wire-rod mills	35,500	30,700	30,100	401,000	34,600
Red brass: ³	<u> </u>				
All plants	3,770 ^r	3,640	3,390	44,800	3,240
Leaded yellow brass:	_				
All plants	26,700	22,500	23,200	323,000	14,900
Yellow and low brass:	_				
All plants	3,330 ^r	3,310	3,270	40,000	15,300
Cartridge cases and brass:	_				
All plants	7,260 ^r	7,320	5,790	85,400	8,370
Auto radiators:	-				
Smelters and refiners	2,610 ^r	2,610	2,610	31,400	2,150
Bronzes:	_				
Smelters and refiners	672 ^r	672	672	8,070	667
Brass mills	533	541	481	6,350	457
Nickel-copper alloys:	_				
All plants	1,580 ^r	1,410	978	20,000	1,470
Low grade and residues:					
Smelters and refiners	880 r	880	880	10,600	1,050
Other alloy scrap: ⁴	-				
Smelters and refiners	251 ^r	251	251	3,010	92
Brass mills	697	332	332	4,860	359
Total alloyed scrap:					
Smelters and refiners	8,170 ^r	8,170	8,170	98,000	7,260
Brass mills	40,100	35,300	33,700	480,000	40,800
Total scrap:					
Smelters and refiners	16,000 ^r	16,000	15,800	192,000	15,400
Brass and wire-rod mills	75,600	66,100	63,700	880,000	75,300
P					

^pPreliminary. ^rRevised.

¹Does not include: consumption by foundries, chemical plants, and miscellaneous manufacturers, estimated to total about 7,240 tons of scrap per month based on 2002 annual data; monthly data include estimates of about 14,200 tons of scrap per month consumed by ingot makers.

²Data are rounded to no more than three significant digits; may not add to totals shown.

³Includes composition turnings, silicon bronze, zincy bronze, railroad car boxes, cocks and faucets, gilding metal, and commercial bronze.

⁴Includes refinery brass, beryllium copper, phosphor copper, and aluminum bronze.

TABLE 11 COPPER STOCKS AT END OF PERIOD 1

				Re	efined copper			
	Crude		Wire-rod					Total
Period	copper ²	Refineries ³	$mills^3$	Brass mills ³	Other ⁴	Comex ⁵	LME^6	refined
2004: ^P								
January	49,900	9,840	22,500	12,500	3,600	239,000	291,000	578,000
February	48,100	10,100	25,200	16,300	3,600	219,000	240,000	515,000
March	43,200	10,800	30,700	14,200	3,600	193,000	167,000	420,000
April	62,900	8,510	19,100	16,700	3,600	156,000	126,000	330,000
May	69,100	11,100	27,500	18,000	3,600	120,000	114,000	293,000
June	60,600	5,680	26,600	19,600	3,600	86,300	92,800	234,000
July	62,200	6,780	29,700	19,100	3,600	71,700	80,800	212,000
August	65,700	8,640	21,400	22,600	3,600	55,900	66,400	179,000
September	71,600	7,830	15,200	24,900	3,600	44,900	59,000	155,000
October	72,200	9,210	25,200	20,300	3,600	41,300	43,400	143,000
November	70,600	13,100	24,300	18,200	3,600	38,500	37,500	135,000
December	51,400	10,300	20,300	21,500	3,600	43,700	35,000	134,000
2005, January	65,700	13,200	21,200	24,000	3,600	41,600	34,900	138,000

^pPreliminary.

TABLE 12 AVERAGE PRICE OF COPPER IN THE UNITED STATES AND ON THE LONDON METAL EXCHANGE

(Cents per pound)

	U.S. producers	Comex	LME
	delivered price	first	cash price
Period	cathode1	position ²	Grade A
2004:			
January	114.336	110.150	109.911
February	129.302	125.116	125.144
March	138.323	134.137	136.439
April	133.646	128.481	133.694
May	126.097	120.968	123.960
June	126.008	120.862	121.832
July	132.078	126.812	127.342
August	133.015	127.752	129.064
September	136.680	131.414	131.283
October	140.273	135.007	136.575
November	146.599	141.333	141.620
December	150.897	145.631	142.633
Year	133.938	128.972	129.958
2005, January	150.261	144.995	143.751

¹Listed as "U.S. producer cathode."

Sources: Platts Metals Week and American Metal Market.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Copper content of blister and other materials in transit and in process of refining.

³Stocks of refined copper as reported; no estimates are made for nonrespondents.

⁴Monthly estimates based on reported and 2002 annual data, comprising stocks at ingot makers, chemical plants, foundries, and miscellaneous manufacturers.

⁵Commodity Exchange Inc., New York.

⁶London Metal Exchange Ltd., U.S. warehouses.

²Listed as "Comex high grade first position."

 ${\it TABLE~13}$ NEW YORK AVERAGE BUYING PRICES FOR COPPER SCRAP

(Cents per pound)

			Dealers (New York)			
		•		Red brass		
	Brass mills	Refiners	No. 2	turnings and		
Month	No. 1 scrap	No. 2 scrap	Scrap	borings		
2004:						
January	108.80	98.38	72.60	50.20		
February	124.08	112.66	75.84	52.37		
March	132.89	118.57	91.00	60.30		
April	127.30	107.18	90.91	58.82		
May	119.65	96.28	89.00	55.00		
June	119.82	96.55	89.00	55.00		
July	125.52	101.33	89.00	55.00		
August	126.64	101.73	89.00	55.00		
September	127.29	106.19	89.00	55.00		
October	130.43	113.38	89.00	55.00		
November	135.40	118.15	89.00	55.00		
December	139.14	121.00	89.00	55.00		
Year	126.41	107.62	86.86	55.14		
2005, January	139.40	119.50	89.00	55.00		

Source: American Metal Market.

 ${\it TABLE~14}$ U.S. IMPORTS FOR CONSUMPTION OF COPPER (UNMANUFACTURED), BY CLASS 1

(Metric tons, copper content)

	Ore and concentrate			Matte,	Matte, ash and precipitates			ister and anode	es	Refined		
		2004			2004 January -			2004 January -			2004	
Country or			January -									January -
territory	2003	December	December	2003	December	December	2003	December	December	2003	December	December
Brazil							(2)			11,800	3,010	15,600
Canada	86		516	187	1	99	83,600	4,990	75,500	218,000	26,400	278,000
Chile	4,940						45,200	3,600	48,900	348,000	14,500	311,000
Germany				59						8,530	211	21,000
Japan						(2)	(2)		19	5,020	241	4,380
Mexico	22,000		22,400	501	17	206	10,200	379	8,630	21,600	1,470	19,300
Namibia							17,700		7,710			
Peru							5		10,200	258,000	5,260	152,000
Taiwan				699	191	1,330						(2)
United Kingdom							2	(2)	3	10,100	(2)	27
Other				54	11	45	23		13	1,220	3	6,100
Total	27,100		22,900	1,500	220	1,680	157,000	8,970	151,000	882,000	51,100	807,000

⁻⁻ Zero

Source: U.S. Census Bureau.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Less than 1/2 unit.

 $\label{eq:table 15} \text{U.s. EXPORTS OF COPPER (UNMANUFACTURED), BY CLASS}^1$

(Metric tons, copper content)

	Ore and concentrate			Matte, ash and precipitates			Bli	ister and anode	es	Refined		
-		2004			2004			2004			2004	
Country or			January -			January -			January -			January -
territory	2003	December	December	2003	December	December	2003	December	December	2003	December	December
Belgium	87		6	39	39	45		323	1,320	2		998
Canada	7,540	571	18,200	6,740	1,500	18,800	17,200	1,130	22,400	2,100	461	2,230
China	1,380	59	2,340	153		52	567		307	71,600	4,140	23,900
Costa Rica				3			1			254		1,300
Germany			32	-2		23	441	99	1,880	185	7	70
Hong Kong	27		229	74		12	2,650	257	3,410	52	4	11
India			56	175	1	21	118		164	1,370	230	2,940
Italy				5			219	1,450	1,570	81	(2)	21,100
Japan	107		2,510	40	2	122	85		705	251		66
Korea, Republic of			23	12	2	8	788	144	8,910	742	1,810	5,060
Mexico	224		115	8,090	84	2,650	252	97	221	12,200	1,300	20,500
Saudi Arabia										28		7,840
Singapore	6			4	1	19	478	40	654	71		39
Taiwan	11	12	109			5	1,270	120	1,320	3,630	413	29,000
United Arab Emirates	4		5	4		5	503		669	4		
United Kingdom	41	9	37	77		87	430	6	474	42	3	590
Other	438	68	577	219 ^r	4	244	1,120	356	2,430	749 ^r	23	2,610
Total	9,860	719	24,200	15,600	1,630	22,100	26,100	4,020	46,400	93,300	8,390	118,000

Revised. -- Zero.

Source: U.S. Census Bureau.

 $^{^{1}\}mbox{Data}$ are rounded to no more than three significant digits; may not add to totals shown.

²Less than 1/2 unit.

TABLE 16 U.S. COPPER SCRAP TRADE¹

(Metric tons, gross weight)

	Imports							Exports						
	Unalloyed			Alloyed				Unalloyed		Alloyed				
		2004			2004			2004			2004			
Country or			January -	7 -	January -				January -			January -		
territory	2003	December	December	2003	December	December	2003	December	December	2003	December	December		
Belgium				46			2,630	189	3,850	6,010	803	8,200		
Canada	4,130	596	6,370	37,300	4,070	44,500	21,200	2,490	33,300	17,500	1,040	15,000		
China			1	824	22	448	225,000	19,700	222,000	245,000	22,700	239,000		
Costa Rica	921	130	1,400	404	48	516				6				
Dominican Republic	1,100		446	766	52	432				4				
Germany	19	3	48	5,250	5	1,130	7,900	1,260	8,830	7,680	1,320	13,800		
Guatemala	474		271	869	152	1,050								
Hong Kong		(2)	1				2,530	125	3,910	9,600	1,030	11,000		
India				18			5,550		4,160	45,400	2,830	45,100		
Japan	77	4	65	261	25	145	6,790	651	7,930	9,110	747	9,660		
Korea, Republic of				21		7	25,400	987	22,400	15,500	1,000	16,300		
Malaysia				272		231	3,620	82	578	88		53		
Mexico	9,950	750	10,300	18,700	1,730	22,100	3,200	278	4,560	808	75	1,570		
Taiwan				462	30	1,480	8,500	1,260	11,300	6,860	1,390	13,700		
United Kingdom	278	18	554	781	71	1,030	97		34	857	255	4,560		
Other	2,660	562	3,980	5,020	465	5,200	2,940	192	2,450	9,070	549	11,100		
Total	19,600	2,060	23,400	71,000	6,670	78,300	316,000	27,200	325,000	373,000	33,800	389,000		

⁻⁻ Zero.

Source: U.S. Census Bureau.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Less than 1/2 unit.